

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
)
Edward I. Comer, Jr.)
)
Serial No.: **Unassigned**)
)
Filing Date: **Filed Concurrently Herewith**)
)
Title: **Multiple Wireless Data Transport System**)

PRELIMINARY AMENDMENT

Commissioner of Patents
Washington, D.C. 20231

Sir:


Prior to examination of the above-styled patent application, which is a continuation patent application of pending U.S. Patent Application Serial No. 09/661,347, filed on September 14, 2000, on behalf of the inventor Edward I. Comer, Jr., please amend the application as shown below.

AMENDMENT

In the Specification

Please insert on page 1, beneath the title and above the paragraph beginning on line 5, which begins "**TECHNICAL FIELD**," the following new paragraph:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on **January 2, 2002**.


Charles E. Peeler, Reg. No. 45,004

--RELATED APPLICATIONS

This application is a continuation of and claims priority under 35 U.S.C. § 120 to pending U.S. Patent Application No. 09/661,347 entitled "Multiple Wireless Data Transport Transceiver System," which is hereby fully incorporated herein by reference.--

In the Claims

Please cancel Claims 5 and 10, amend the following claims as shown, and add the following new claims before calculating the filing fee in the above-styled patent application.

1. (Once Amended) A system for communicating a message comprising data content in a cellular mobile radiotelephone (CMR) system, comprising:

a plurality of wireless data transport (WDT) transceivers each capable of supporting wireless data communications with the CMR system by a plurality of WDTs, each WDT transceiver coupled to an antenna and operable to communicate the message with any one of the WDTs via the antenna;

a controller operative to identify each of the WDTs operational within the CMR system for transporting the message and to select one of the WDT transceivers corresponding to one of the identified WDTs for communicating the message in response to analyzing characteristics of the data content of the message based upon selection criteria;

a user interface, coupled to the controller, operative to provide a unified interface to the WDT transceivers; and

a normalization function, coupled to each WDT transceiver and to the controller, operative to transform the message into a format acceptable for processing by the selected WDT transceiver,

wherein the communications system can communicate different messages using different ones of the WDTs available within an operating environment by completing an analysis of the data content of each of the messages on a dynamic, real time basis.

6. (Once Amended) The system of Claim 1, wherein the controller identifies one of the WDTs for transporting the message by identifying each available WDT in an the operating environment and choosing one of the transceivers associated with the identified WDT to communicate the message based upon the volume of the data content of the message.

7. (Once Amended) The system of Claim 1, wherein the controller identifies one of the WDTs for transporting the message by identifying each available WDT in an the operating environment and choosing one of the transceivers associated with the identified WDT to communicate the message based upon the cost of the message communication.

9. (Once Amended) A computer-implemented process for communicating a message comprising data content in a cellular mobileradiotelephone (CMR) system, comprising the steps:

identifying each available wireless data transport (WDT) in an operating environment of the CMR system by monitoring the operating environment;

selecting one identified WDT to support the communication of the message by analyzing the data content of the message in view of predetermined selection criteria applied on a message-by-message basis to determine the most appropriate WDT for message communication; and

communicating the message with the selected WDT in the CMR system.

16. (Once Amended) A memory storage device comprising computer-executable instructions for communicating a message comprising data content in a cellular mobileradiotelephone (CMR) system, comprising:

identifying each wireless data transport in an operating environment of the CMR system in response to monitoring the operating environment;

selecting one identified wireless data transport to support the communication of the message based only upon an analysis of the volume of the data content on a message-by-message basis, wherein each wireless data transport is assigned to support the

communication of messages comprising a different predetermined range of data content volume;
and

communicating the message with the selected wireless data transport in the CMR system.

22. (Once Amended) A memory storage device comprising computer-executable instructions for communicating a message comprising data content in a cellular mobileradiotelephone (CMR) system, comprising:

identifying each wireless data transport in an operating environment of the CMR system in response to monitoring the operating environment;

selecting one identified wireless data transport as a preferred transport medium to support the communication of the message based upon an analysis of the volume of the data content, wherein each wireless data transport is assigned to support the communication of messages comprising a different predetermined range of data content volume;

selecting one identified wireless data transport to support the communication of the message based upon alternative selection criteria other than data content volume, the alternative selection criteria comprising at least one of time of day for the message communication, location of a recipient of the message communication, cost of the message communication, expected latency of the message communication, and priority status of the message communication;

if the wireless data transport selected as the preferred transport medium is the wireless data transport selected based upon the alternative selection criteria,

then communicating the message with the preferred transport medium in the CMR system,

otherwise, communicating the message with the wireless data transport selected based upon the alternative selection criteria.

Please add the following new claims:

23. (New) A system for communicating a message comprising data content in a cellular mobile radiotelephone (CMR) system, comprising:

a plurality of wireless data transport (WDT) transceivers, each capable of supporting wireless data communications with the CMR system by a plurality of WDTs, each WDT transceiver coupled to an antenna and operable to communicate the message with any one of the WDTs via the antenna;

a controller operative to identify each of the WDTs operational within the CMR system for transporting the message and to select one of the WDT transceivers corresponding to one of the identified WDTs for communicating the message based upon selection criteria applied to the data content of the message;

a user interface, coupled to the controller, operative to provide a unified interface to the WDT transceivers; and

a normalization function, coupled to each WDT transceiver and to the controller, operative to transform the message into a format acceptable for transmission by the selected WDT transceiver and to transform the data content received by the selected WDT transceiver for presentation via the user interface, said normalization function comprising a plurality of transformation processes to support the operation of the plurality of WDT transceivers.

24. (New) The system of Claim 23, wherein the selection criteria comprises at least one of data content volume and priority status of the data content.

25. (New) The system of Claim 23, wherein the controller uses a selection algorithm to select the WDT transceiver, the selection algorithm based on a heuristic process having a learning capability for prior message communication operations.

26. (New) A system for communicating a message comprising data content in a cellular mobile radiotelephone (CMR) system, comprising:

a plurality of wireless data transport (WDT) transceivers each capable of supporting wireless data communications with the CMR system by a plurality of WDTs, each WDT transceiver coupled to an antenna and operable to communicate the message with any one of the WDTs via the antenna;

a controller operative to identify each of the WDTs operational within the CMR system for transporting the message and to select one of the WDT transceivers corresponding to one of the identified WDTs for communicating the message in response to analyzing characteristics of the data content of the message based upon selection criteria;

a user interface, coupled to the controller, operative to provide a unified interface to the WDT transceivers;

a normalization function, coupled to each WDT transceiver and to the controller, operative to transform the message into a format acceptable for processing by the selected WDT transceiver; and

a memory, coupled to the controller, for storing firmware which comprises instructions for execution by the controller to enable communication by the transceiver and for storing data comprising the identity of each WDT supported by an operating environment.

27. (New) The system of claim 26, wherein the memory stores data input by a user via the user interface for transmission by the selected WDT transceiver.

28. (New) The system of claim 26, wherein the memory stores an instruction set executable by the controller and normalization data for use by the normalization function.

INFORMATION DISCLOSURE STATEMENT

Applicant submits herewith an Information Disclosure Statement (IDS) and completed PTO-1449 form in connection with the parent application. The IDS lists the references cited in the parent case. In accordance with 37 C.F.R. 1.98(d), Applicant has not provided the Patent Office with copies of the references cited by the IDS.

REMARKS

Applicant respectfully requests that the Examiner enter the above claim amendments and new claims for consideration in the present continuation patent application. Applicant has cancelled Claims 5 and 10, amended Claims 1, 6, 7, 9, 16 and 22, and added new Claims 23-28. Applicant has also amended the specification to indicate that the present application is a continuation application of pending U.S. Patent Application Serial No. 09/661,347 filed on September 14, 2000. Claims 1-4, 6-9, and 11-28 are now pending in the present application. The independent claims are Claims 1, 9, 16, 22, 23, and 26.

CONCLUSION

Applicant respectfully submits that the above-styled continuation patent application, as amended, is in condition for examination and requests such action. If any issues remain that may be resolved by telephone, the Examiner is requested to call the undersigned at 404.572.4749.

Respectfully submitted,



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404.572.4600

K&S Docket No. 06931.105003

Attachment I
Version with Markings to Show Changes Made

In the Specification

Please insert on page 1, beneath the title and above the paragraph on line 5 beginning "TECHNICAL FIELD," the following new paragraph:

--RELATED APPLICATIONS

This application is a continuation of and claims priority under 35 U.S.C. § 120 to pending U.S. Patent Application No. 09/661,347 entitled "Multiple Wireless Data Transport Transceiver System," which is hereby fully incorporated herein by reference.--

In the Claims

1. (Once Amended) A system for communicating a message comprising data content in a cellular mobile radiotelephone (CMR) system, comprising:

a plurality of wireless data transport (WDT) transceivers each capable of supporting wireless data communications with the CMR system by a plurality of WDTs, each WDT transceiver coupled to an antenna and operable to communicate the message with any one of the WDTs via the antenna;

a controller operative to identify each of the WDTs operational within the CMR system for transporting the message and to select one of the WDT transceivers corresponding to one of the identified WDTs for communicating the message in response to analyzing characteristics of the data content of the message based upon selection criteria;

a user interface, coupled to the controller, operative to provide a unified interface to the WDT transceivers; and

a normalization function, coupled to each WDT transceiver and to the controller, operative to transform the message into a format acceptable for processing by the selected WDT transceiver,

wherein the communications system can communicate different messages using different ones of the WDTs available within an operating environment by completing an analysis of the data content of each of the messages on a dynamic, real time basis.

6. (Once Amended) The system of Claim 1, wherein the controller identifies one of the WDTs for transporting the message by identifying each available WDT in [an] the operating environment and choosing one of the transceivers associated with the identified WDT to communicate the message based upon the volume of the data content of the message.

7. (Once Amended) The system of Claim 1, wherein the controller identifies one of the WDTs for transporting the message by identifying each available WDT in [an] the operating environment and choosing one of the transceivers associated with the identified WDT to communicate the message based upon the cost of the message communication.

9. (Once Amended) A computer-implemented process for communicating a message comprising data content in a cellular mobileradiotelephone (CMR) system, comprising the steps:

identifying each available wireless data transport (WDT) in an operating environment of the CMR system by monitoring the operating environment;

selecting one identified [wireless data transport] WDT to support the communication of the message [based upon a characteristic of the data content] by analyzing the data content of the message in view of predetermined selection criteria applied on a message-by-message basis to determine the most appropriate WDT for message communication; and

communicating the message with the selected [wireless data transport] WDT in the CMR system.

16. (Once Amended) A memory storage device comprising computer-executable instructions for communicating a message comprising data content in a cellular mobileradiotelephone (CMR) system, comprising:

identifying each wireless data transport in an operating environment of the CMR system in response to monitoring the operating environment;

selecting one identified wireless data transport to support the communication of the message based only upon an analysis of the volume of the data content on a message-by-message basis, wherein each wireless data transport is assigned to support the

communication of messages comprising a different predetermined range of data content volume;
and

communicating the message with the selected wireless data transport in
the CMR system.

22. (Once Amended) A memory storage device comprising computer-executable instructions for communicating a message comprising data content in a cellular mobileradiotelephone (CMR) system, comprising:

identifying each wireless data transport in an operating environment of the CMR system in response to monitoring the operating environment;

selecting one identified wireless data transport as a preferred transport medium to support the communication of the message based upon an analysis of the volume of the data content, wherein each wireless data transport is assigned to support the communication of messages comprising a different predetermined range of data content volume;

selecting one identified wireless data transport to support the communication of the message based upon alternative selection criteria other than data content volume, the alternative selection criteria comprising at least one of time of day for the message communication, location of a recipient of the message communication, cost of the message communication, expected latency of the message communication, and priority status of the message communication;

if the wireless data transport selected as the preferred transport medium is the wireless data transport selected based upon the alternative selection criteria,

then communicating the message with the preferred transport medium in the CMR system,

otherwise, communicating the message with the wireless data transport selected based upon the alternative selection criteria.

23. (New) A system for communicating a message comprising data content in a cellular mobile radiotelephone (CMR) system, comprising:

a plurality of wireless data transport (WDT) transceivers, each capable of supporting wireless data communications with the CMR system by a plurality of WDTs, each WDT transceiver coupled to an antenna and operable to communicate the message with any one of the WDTs via the antenna;

a controller operative to identify each of the WDTs operational within the CMR system for transporting the message and to select one of the WDT transceivers corresponding to one of the identified WDTs for communicating the message based upon selection criteria applied to the data content of the message;

a user interface, coupled to the controller, operative to provide a unified interface to the WDT transceivers; and

a normalization function, coupled to each WDT transceiver and to the controller, operative to transform the message into a format acceptable for transmission by the selected WDT transceiver and to transform the data content received by the selected WDT transceiver for presentation via the user interface, said normalization function comprising a plurality of transformation processes to support the operation of the plurality of WDT transceivers.

24. (New) The system of Claim 23, wherein the selection criteria comprises at least one of data content volume and priority status of the data content.

25. (New) The system of Claim 23, wherein the controller uses a selection algorithm to select the WDT transceiver, the selection algorithm based on a heuristic process to support learning capability for prior message communication operations.

26. (New) A system for communicating a message comprising data content in a cellular mobile radiotelephone (CMR) system, comprising:

a plurality of wireless data transport (WDT) transceivers each capable of supporting wireless data communications with the CMR system by a plurality of WDTs, each WDT transceiver coupled to an antenna and operable to communicate the message with any one of the WDTs via the antenna;

a controller operative to identify each of the WDTs operational within the CMR system for transporting the message and to select one of the WDT transceivers corresponding to one of the identified WDTs for communicating the message in response to analyzing characteristics of the data content of the message based upon selection criteria;

a user interface, coupled to the controller, operative to provide a unified interface to the WDT transceivers;

a normalization function, coupled to each WDT transceiver and to the controller, operative to transform the message into a format acceptable for processing by the selected WDT transceiver; and

a memory, coupled to the controller, for storing firmware which comprises instructions for execution by the controller to enable communication by the transceiver and for storing data comprising the identity of each WDT supported by an operating environment.

27. (New) The system of claim 26, wherein the memory stores data input by a user via the user interface for transmission by the selected WDT transceiver.

28. (New) The system of claim 26, wherein the memory stores an instruction set executable by the controller and normalization data for use by the normalization function.